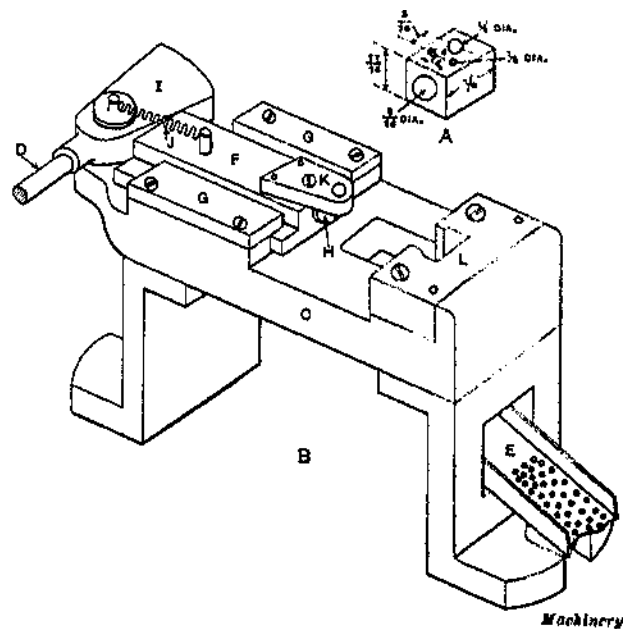


hold the drill and tap. The wheel is now revolved, causing the rack, the teeth of which mesh with those of the pinion, to move until the stop-pin *E* terminates its motion at point *G*. The wheel will then have turned 135 degrees and is ready for the drilling and tapping of the other two holes. After these are finished, the wheel is turned back until stop-pin *E* comes against point *F*. The operator cannot take the wheel off nor



**Fig. 3. Jig for Holding
Cast-iron Blocks while
drilling**

put it on until the rack is in the correct starting position, because safety latch *H* will be lifted by rack *D*, thus preventing the pinion which just passes it when in the lowest position from being taken off or put on. The operator must, therefore, start at the proper point for turning the

full 135 degrees, and cannot make the mistake of not turning the wheel back far enough to achieve that result.

Cam-operated Clamping Slide on Drill Jig. — Two jigs were required for drilling 50,000 blocks of the size shown at *A* in Fig. 3. These blocks were of gray iron, and, when received,